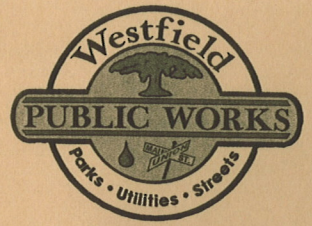


# WESTFIELD PUBLIC WORKS



DIRECTOR OF PUBLIC WORKS  
BRUCE A. HAUK

TOWN COUNCIL  
JOHN B. HART  
DAVID D. MIKESELL  
TERESA OTIS SKELTON  
ROBERT J. SMITH  
RONALD W. THOMAS

CLERK-TREASURER  
CINDY J. GOSSARD

## Memorandum

To: Westfield Town Council  
From: Kurt J. Wanninger  
CC: Bruce A. Hauk  
Date: May 4, 2007  
Re: Public Works Department Matters

Dear Members of Council, I would like to take this opportunity to update you regarding some of the activities that have taken place within the Public Works Department over the last month.

### **Fees Collected**

(See Attachment 1)

### **Department Safety Statistics**

(See Attachment 2)

### **HNTB Progress Report**

(See Attachment 3)

### **Employee of the Month**

The department's Employee of the Month selection for April 2007 was Michael Morgan. Michael has been with the Westfield Public Works Department since June of 2003. Michael is an Infrastructure Inspector within the Development /Construction Division. Please join me in congratulating Michael on this significant achievement.



**Action Item #1 (Ordinance 07-06; Westside Sanitary Sewer Interceptor Bond Ordinance)**  
**Second Reading**

This Ordinance is being presented as a second reading.

The following representatives will be available for Council to answer questions that may arise when this ordinance is presented, Kurt Wanninger (Public Works Assistant Director), Patty Zelmer, Buddy Downs (ICE Miller), Jim Treat (O.W. Krohn and Associates), and Pat Spence (HNTB).

The Westfield Public Works Department accepted bids for the Westside Sanitary Sewer Interceptor on April 24, 2007. Eight reputable contract companies submitted competitive bids for this contract (See "Exhibit A"). The engineer's estimate for this project was 20 million dollars. The lowest bid for this project was submitted by Atlas Excavating Bid using Hobas pipe. The Base Bid submitted by Atlas Excavating was \$12,991,868 using Hobas Pipe with an alternate for manhole lining of \$459,400.

As part of this project other services are required to complete the project and to ensure that this project is built to the standards and specifications set forth in the contract. The following is a list of Atlas Excavating prices, and other services required, to complete this project:

Hobas Pipe	\$12,991,868.00 (DI bid was \$15,181,812)
Manhole Lining Alt.:	\$459,400.00
Remob. for Buckeye line:	\$46,000.00
Construction Engineering:	\$228,000.00
Resident Representative:	\$234,000.00
Wetlands Mitigation Eng.:	<u>\$30,000.00</u>
TOTAL COSTS	\$13,989,268.00

Therefore, the Westfield Public Works Department recommends to the Westfield Town Council that an amount of \$14,000,000 be approved for the Westside Interceptor Bond Ordinance 07-06.

**Action Item #2 (Award Westside Sanitary Sewer Interceptor Contract)**

As mentioned above, the Westfield Public Works Department accepted bids for the Westside Sanitary Sewer Interceptor on April 24, 2007. This project consists of the construction of 5.05 miles of 54 and 48 inch sanitary sewer interceptor pipe and 72 manholes ranging in size from 120- 84 inches in diameter. The interceptor generally runs along the west side of Little Eagle Creek from the Waste Water Treatment Plant to the 181 block, and then east from Little Eagle Creek to the intersections of Dartown, Kinsey, and 181<sup>st</sup> Streets.

Eight reputable contract companies submitted competitive bids for this contract (See "Exhibit A"). The engineer's estimate for this project was 20 million dollars. The lowest bid for this project was submitted by Atlas Excavating using Hobas pipe. The Base Bid submitted by Atlas Excavating was \$12,991,868 using Hobas Pipe with an alternate for manhole lining of \$459,400.

The Westfield Public Works Department and HNTB staff has reviewed Atlas Excavating's contract and supplemental information and have determined that Atlas Excavating has met the requirements as defined in the contract documents.



Therefore, the Westfield Public Works Department recommends to the Westfield Town Council that the Contract amount of \$13,451,268 (Hobas Pipe and Manhole Lining Alt.) be awarded to Atlas Excavating for construction of the Westside Interceptor.

**Action Item #3 (Award 147<sup>th</sup> Street and Greyhound Pass Intersection Improvements Contract)**

The Westfield Public Works Department accepted bids for the 147<sup>th</sup> Street and Greyhound Pass Intersection Improvements on April 4, 2007.

Two reputable contract companies submitted competitive bids for this contract (See "Exhibit B"). The engineer's estimate for this project was \$149,837.75. The lowest bid for this project was submitted Midwestern Electric, Inc at \$193,413.35.

The Westfield Public Works Department and HNTB staff has reviewed Midwestern Electric, Inc contract and supplemental information and have determined that Midwestern Electric, Inc has met the requirements as defined in the contract documents.

Therefore, the Westfield Public Works Department recommends to the Westfield Town Council that the Contract amount of \$193,413.35 (~~Hobas Pipe and Manhole Lining Alt.~~) be awarded to Midwestern Electric, Inc for construction of the 147<sup>th</sup> Street and Greyhound Pass Intersection Improvements.

**Action Item #4 (Award the River Road Water Treatment Plant Expansion Contract)**

The Westfield Public Works Department accepted bids for the River Road Water Treatment Plant Expansion on April 18, 2007. This project will increase the capacity of the River Road Water Treatment Plant from 5 million gallons per day (MGD) to 10 MGD.

Four reputable contract companies submitted competitive bids for this contract (See "Exhibit C"). The engineer's estimate for this project was \$4,000,000. The lowest bid for this project was submitted Shook, Inc. at \$2,719,000

The Westfield Public Works Department and HNTB staff has reviewed Shook, Inc contract and supplemental information and have determined that Shook, Inc has met the requirements as defined in the contract documents.

Therefore, the Westfield Public Works Department recommends to the Westfield Town Council that the Contract amount of \$2,719,000 be awarded to Shook, Inc for construction of the River Road Water Treatment Plant Expansion.



**Action Item #5 (Award 151<sup>st</sup> Street Improvements form Gray Road to Setters Road Improvements)**

The Westfield Public Works Department accepted bids for the 151<sup>st</sup> Street Improvements form Gray Road to Setters Road Improvements on May 9, 2007. This project will improve this section of road to a boulevard section with planted medians and multiuse paths.

The Westfield Public Works Department and Paul I. Cripe Engineer's staff has reviewed the bids for this contract and supplemental information submitted by the bidders.

Therefore, the Westfield Public Works Department recommends to the Westfield Town Council that the Contract be awarded for the 151<sup>st</sup> Street Improvements form Gray Road to Setters Road Improvements.

**Action Item #6 (Adopt Obstruction Free Zone Standards as Policy)**

This policy is being introduced to the Council for consideration for adoption as policy to the Town of Westfield Public Works Utility and Infrastructure Construction Standards and Specifications Manual.

This policy will be incorporated into the manual under Section 02501 - Standards of Roadway Geometric Design. This policy establishes obstruction free zone criteria along the Town of Westfield's streets and roads (See "Exhibit D"). Specifically, this policy will increase the public safety along Town owed roadways.

Therefore, the Westfield Public Works Department recommends to the Westfield Town Council that the Council adopts these standards as policy.

**Action Item #7 (Ordinance 07-12 Amendments to Traffic Regulation Code - Downtown Parking) - First Reading**

This Ordinance is being presented as a first reading.

Amendments to this ordinance consist of additional clarification to the alley locations and the addition of parking restrictions in the area of downtown Westfield (See summary of changes in "Exhibit E"). Specifically, in regards to the downtown parking restrictions, these additions establish 2 & 4 hour parking restrictions Monday through Saturday, with no parking restrictions between 2 & 6 a.m. Monday through Sunday. The areas designated are depicted in the ordinance in writing and in map form. Additionally, the parking restriction zones establish penalties, which are included in this Ordinance, that are enforceable by the Town of Westfield Police Department.

The Westfield Public Works Department has submitted a Request for Official Action to INDOT for the approval of the parking restrictions along SR 32. At this time INDOT has not ruled on the parking restrictions along SR 32. Therefore, any approval of this Ordinance Amendments that pertain to parking restrictions on SR 32 will need INDOT approval.

Therefore, the Westfield Public Works Department recommends these amendments to the Traffic Regulations Code to the Westfield Town Council for the first reading.



## Yearly Permit Fees-2007

Type of Fees	January	February	March	April	May	June	July	August	September	October	November	December
Entrenchment Permits	\$ 1,943.00	\$ 175.00	\$ 1,130.00	\$ 2,275.00								
Sewer Availability Fees	\$ 15,925.00	\$ 17,500.00	\$ 21,880.00	\$ 126,635.00								
Sewer Tap Fees	\$ 25,510.00	\$ 20,760.00	\$ 61,880.00	\$ 48,180.00								
Subsequent Sewer Connection	\$ 843.60	\$ 10,079.68	\$ 3,374.40	\$ 760.00								
Water Availability Fees	\$ 39,680.40	\$ 42,457.50	\$ 21,343.50	\$ 71,420.40								
Water-3/4" Tap Fees	\$ 21,929.00	\$ 9,525.00	\$ 23,960.00	\$ 24,340.00								
Water-1" Tap Fees	\$ -	\$ -	\$ -	\$ 500.00								
Water-1 1/2" or Greater	\$ -	\$ -	\$ -	\$ -								
Lawn Irrigation Fees	\$ 225.00	\$ -	\$ 200.00	\$ 1,650.00								
Road Impact Fees	\$ 34,196.42	\$ 3,159.00	\$ 21,986.64	\$ 19,676.00								
Plan Review Fees	\$ 10,555.00	\$ 4,575.00	\$ 11,535.00	\$ 2,340.00								
Inspection Fees	\$ 4,896.21	\$ 10,323.00	\$ 8,566.61	\$ 5,234.02								
Map Fees	\$ 37.50	\$ -	\$ 37.50	\$ 70.00								
Erosion Control Appl. Fees	\$ 1,500.00	\$ 1,700.00	\$ 1,500.00	\$ 3,100.00								
Erosion Control Penalty Fees	\$ 700.00	\$ 350.00	\$ 2,300.00	\$ 300.00								
Sanitary Sewer Permit Fees	\$ -	\$ 300.00	\$ 300.00	\$ 300.00								
Water Permit Fees	\$ -	\$ -	\$ 600.00	\$ 600.00								
Water Service Line Protection	\$ 480.00	\$ -	\$ 96.00	\$ -								

<b>Totals per Month</b>	\$ 158,421.13	\$ 120,904.18	\$ 180,689.65	\$ 307,380.42	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
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	1st Qtr Total	2nd Qtr Total	3rd Qtr Total	4th Qtr Total
Entrenchment Permits	\$ 3,248.00	\$ 2,275.00	\$ -	\$ -
Sewer Availability Fees	\$ 55,305.00	\$ 126,635.00	\$ -	\$ -
Sewer Tap Fees	\$ 108,150.00	\$ 48,180.00	\$ -	\$ -
Subsequent Sewer Connection	\$ 14,297.68	\$ 760.00	\$ -	\$ -
Water Availability Fees	\$ 103,481.40	\$ 71,420.40	\$ -	\$ -
Water-3/4" Tap Fees	\$ 55,414.00	\$ 24,340.00	\$ -	\$ -
Water-1" Tap Fees	\$ -	\$ 500.00	\$ -	\$ -
Water-1 1/2" or Greater	\$ -	\$ -	\$ -	\$ -
Lawn Irrigation Fees	\$ 425.00	\$ 1,650.00	\$ -	\$ -
Road Impact Fees	\$ 59,342.06	\$ 19,676.00	\$ -	\$ -
Plan Review Fees	\$ 26,665.00	\$ 2,340.00	\$ -	\$ -
Inspection Fees	\$ 23,785.82	\$ 5,234.02	\$ -	\$ -
Map Fees	\$ 75.00	\$ 70.00	\$ -	\$ -
Erosion Control Appl. Fees	\$ 4,700.00	\$ 3,100.00	\$ -	\$ -
Erosion Control Penalty Fees	\$ 3,350.00	\$ 300.00	\$ -	\$ -
Sanitary Sewer Permit Fees	\$ 600.00	\$ 300.00	\$ -	\$ -
Water Permit Fees	\$ 600.00	\$ 600.00	\$ -	\$ -
Water Service Line Protection	\$ 576.00	\$ -	\$ -	\$ -
<b>Totals per Quarter</b>	\$ 460,014.96	\$ 307,380.42	\$ -	\$ -

<b>Yearly Totals</b>	<b>\$ 767,395.38</b>
Entrenchment Permits	\$ 5,523.00
Sewer Availability Fees	\$ 181,940.00
Sewer Tap Fees	\$ 156,330.00
Subsequent Sewer Connection	\$ 15,057.68
Water Availability Fees	\$ 174,901.80
Water-3/4" Tap Fees	\$ 79,754.00
Water-1" Tap Fees	\$ 500.00
Water-1 1/2" or Greater	\$ -
Lawn Irrigation Fees	\$ 2,075.00
Road Impact Fees	\$ 79,018.06
Plan Review Fees	\$ 29,005.00
Inspection Fees	\$ 29,019.84
Map Fees	\$ 145.00
Erosion Control Appl. Fees	\$ 7,800.00
Erosion Control Penalty Fees	\$ 3,650.00
Sanitary Sewer Permit Fees	\$ 900.00
Water Permit Fees	\$ 1,200.00
Water Service Line Protection	\$ 576.00

<b>4 months - 2006</b>	<b>\$ 1,451,702.47</b>
Entrenchment Permits	\$ 4,175.00
Sewer Availability Fees	\$ 408,125.00
Sewer Tap Fees	\$ 236,520.00
Subsequent Sewer Connection	\$ 15,098.20
Water Availability Fees	\$ 446,604.30
Water-3/4" Tap Fees	\$ 127,945.00
Water-1" Tap Fees	\$ -
Water-1 1/2" or Greater	\$ 3,135.00
Lawn Irrigation Fees	\$ 1,080.00
Road Impact Fees	\$ 191,035.97
Plan Review Fees	\$ 11,660.00
Inspection Fees	\$ 4,899.00
Map Fees	\$ 125.00
Erosion Control Appl. Fees	\$ -
Erosion Control Penalty Fees	\$ -
Sanitary Sewer Permit Fees	\$ 1,500.00
Water Permit Fees	\$ -
Water Service Line Protection	\$ -

<b>Type of Fees</b>	<b>Apr-06</b>
Entrenchment Permits	\$ 2,175.00
Sewer Availability Fees	\$ 30,800.00
Sewer Tap Fees	\$ 53,616.00
Subsequent Sewer Conn	\$ 2,660.00
Water Availability Fees	\$ 45,150.30
Water-3/4" Tap Fees	\$ 29,935.00
Water-1" Tap Fees	\$ -
Water-1 1/2" or Greater	\$ -
Lawn Irrigation Fees	\$ 345.00
Road Impact Fees	\$ 41,187.97
Plan Review Fees	\$ 1,325.00
Inspection Fees	\$ -
Map Fees	\$ -
Erosion Control Appl. Fee	\$ -
Erosion Control Penalty	\$ -
Sanitary Sewer Permit F	\$ -
Water Permit Fees	\$ -
Water Service Line Protection	\$ -
<b>Total</b>	<b>\$ 207,194.27</b>

<b>Yearly Totals</b>	<b>\$ 5,228,125.50</b>
Entrenchment Permits	\$ 23,536.30
Sewer Availability Fees	\$ 1,426,546.60
Sewer Tap Fees	\$ 712,284.00
Subsequent Sewer Connect	\$ 54,840.61
Water Availability Fees	\$ 1,380,543.35
Water-3/4" Tap Fees	\$ 420,874.50
Water-1" Tap Fees	\$ 5,865.00
Water-1 1/2" or Greater	\$ 3,135.00
Lawn Irrigation Fees	\$ 4,490.00
Road Impact Fees	\$ 909,894.76
Plan Review Fees	\$ 138,015.00
Inspection Fees	\$ 93,523.38
Map Fees	\$ 525.00
Erosion Control Appl. Fees	\$ 26,904.00
Erosion Control Penalty Fee	\$ 13,300.00
Sanitary Sewer Permit Fees	\$ 7,200.00
Water Permit Fees	\$ 3,000.00
Water Service Line Protectio	\$ 3,648.00



**WESTFIELD PUBLIC WORKS  
MONTHLY ACCIDENT STATISTICAL REPORT  
FOR APRIL 2007**

Location	# of employees	# of Hours Worked	Employee Accidents/ Month	Disabling Accidents/ Month	Lost Work Days	Restricted Work Days	OSHA Recordable Accidents	# of Vehicles	# of Miles Driven	# of Vehicle Accidents for the Month	Chargeable Accidents for the Month
Administrative	10	1103.5	0	0	0	0	0	6	3221	0	0
CSC	5	538	0	0	0	0	0	1	196	0	0
Water	8	926	0	0	0	0	0	7	5620	0	0
Wastewater	8	921.5	0	0	0	0	0	6	3424	0	0
Street-G/M	12	1231	0	0	0	0	0	14	7379	0	0
GIS	4	480	0	0	0	0	0	2	1531	0	0
Dev/Con-Eng	7	770	0	0	0	0	0	5	2212	0	0
Inst & Controls	1	120	0	0	0	0	0	1	958	0	0
	55	6090	0	0	0	0	0	42	24541	0	0
2006	48	11335.5	2	2	12.125	0	2	36	24613	0	0



WESTFIELD TOWN COUNCIL MEETING  
May 14, 2007

*Progress Report Executive Summary*



The following covers HNTB activities for April 2007.

1. TIF Projects – The 146<sup>th</sup> Path, Greyhound Pass / Western Way, 151<sup>st</sup> St. and East Side Access Rd.  
The 147<sup>th</sup> Street/Greyhound Pass Traffic Signal project was bid on April 4, 2007 with Midwestern Electric the low bidder. HNTB is coordinating with Menards, to obtain a right-of-entry in order to begin construction by early June. HNTB is completing preliminary alternatives for the 151st St. and Carey Rd. intersection and will complete final plans for 151st St. from Carey to Gray to meet an August construction start. The Western Way/Greyhound Pass final plans are complete. R/W engineering is nearly complete. Appraising has started. Construction is scheduled for 2008.
2. Traffic Impact Fee Study  
A kickoff meeting for the Westfield Impact Fee Study project was held on April 9, 2007 at WPWD. Current activities are focused on refinement of the model and obtaining needed data. A meeting was held on April 30, 2007 to discuss data needs and compliance of the impact fee study with Indiana Code Requirements. An agreement between Westfield and Hamilton County will be drafted by the Town's attorney so that the impact fee may consider development and road improvement needs in areas of the county that have not yet been annexed into Westfield.
3. River Road Water Treatment Plant Expansion  
Four bids were received on April 18, 2007 with the lowest submitted by Shook Construction. A recommendation of award will be presented to the Council in May.
4. Westside Interceptor  
Eight (8) bids were received on April 24, 2007, for the construction of the interceptor. The project included mandatory alternates and the lowest bid with the alternates was submitted by Atlas Excavating. A recommendation of award is being prepared and will be presented to the Council in May.
5. 2007 Resurfacing Program  
HNTB is working with INDOT on the Springmill & SR 32 Passing Blister. The Greenfield District is reviewing the right of way and will respond to the town's letter requesting State funds. HNTB started design of the 161st St. & Springmill Intersection improvements. Both projects are anticipated to be included in the 2007 resurfacing program with design completed by mid-May.
6. Public Works Department Facilities Expansion  
The process continues to select a design-build team to expand facilities at the WPWD complex. The Town has short listed three qualified Architect/Contractor teams, and has sent them requests for proposal. This proposal is due May 9, 2007. The Technical Review committee will make their final recommendations to the Town Council in June to award the design-build contract. The project should be completed by the end of the year.

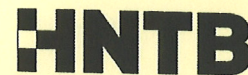


## TOWN OF WESTFIELD

### PROGRESS REPORT

for

May 14, 2007 COUNCIL MEETING



The following covers HNTB activities for April 2007.

1. TIF Projects – The 146<sup>th</sup> Multi-use Path, Greyhound Pass and Western Way, 151<sup>st</sup> Street and East Side Access Road.

The 147<sup>th</sup> Street/Greyhound Pass Traffic Signal project was bid on April 4, 2007. Midwestern Electric, Co. was the low bidder for the project. HNTB sent a letter of recommendation on April 6, 2007. HNTB is continuing to coordinate with Menards, Inc., to obtain a right-of-entry agreement prior to completing the right-of-way acquisition process for the Traffic Signal. Menards, Inc., has requested additional legal disclaimers be added to the agreement. HNTB will provide the revised document to WPWD and the Town attorney for review. The WPWD will provide the inspection services for this signal project anticipated to begin in late May or early June.

HNTB is completing preliminary design alternatives for the 151st Street and Carey Road intersection. A traffic and cost analysis will be presented to the Town in May. Pending the selection of an intersection alternative, this project may have to be phased in order to obtain the necessary R/W. In any event, final plans for 151st Street will be completed, with or without the intersection at Carey Road, to meet an August construction start. This project will tie into the 151st Street project from Setters to Gray Road scheduled for construction completion prior to August 2007.

The Western Way/Greyhound Pass final plans are complete. Final quantities and cost estimate will be complete by mid-May. A utility coordination meeting was held on April 12th with Duke Energy for the Western Way/Greyhound Pass project, 147th Street Traffic Signal, and 151st Street/Carey Road. R/W engineering is nearing completion and the appraising process has started. This project is scheduled for 2008 construction. We have worked closely with Broadbent (property owner / manager) in hopes of minimizing the time necessary to acquire the property.

Supplement No. 3 covering the additional design and right-of-way acquisition services for the extension of the 151st Street project limits was provided to the Town on April 20th and was approved April 27. This supplement provides remaining Design, R/W Engineering, and Land Acquisition Services for the TIF projects. HNTB is authorized to complete work on 151st Street between Carey Road and Setters, and, Greyhound Pass/Western Way. We are currently on hold for any work on 151st Street between Thatcher and Carey Road, the East Access Road, and Greyhound Court.

2. Traffic Impact Fee Study

A kickoff meeting for the Westfield Impact Fee Study project was held on April 9, 2007 at the Westfield Public Works Department. Based on Westfield's desire to have the new impact fee adopted by the end of 2007, it was decided to use the Indiana Statewide Travel Demand Model



(ISTDM) as a base travel demand model for this project rather than the Indianapolis Metropolitan Planning Organization (MPO) travel demand model.

Current activities are focused on refinement of the model to better replicate existing traffic volumes at the boundaries of the Westfield study area, obtaining existing road network, land use and socio-economic data for the model, development of a Westfield subarea model from the ISTDM base model that includes a more detailed road network and traffic analysis zones, development of procedures to evaluate road network levels of service from travel demand model outputs.

A meeting was held on April 30, 2007 to discuss data needs and compliance of the impact fee study with Indiana Code Requirements. An agreement between Westfield and Hamilton County will be drafted by the Town's attorney so that the impact fee may consider development and road improvement needs in areas of the county that have not yet been annexed into Westfield.

3. River Road Water Treatment Plant Expansion

Four (4) bids were received on April 18, 2007 for the expansion project. The lowest bid was submitted by Shook construction for \$2,719,000.00. A recommendation of award is being prepared and will be presented to the Council in May. The IDEM construction permit was received giving the Town approval to move forward with construction.

4. Westside Interceptor

Eight (8) bids were received on April 24, 2007, for the construction of the interceptor. The project was large enough to attract bidders from surrounding states as well as locally. The project included mandatory alternates and the lowest bid with the alternates was submitted by Atlas Excavating for \$13,497,268. The alternates include using Hobas pipe, a lining system for the manholes and re-routing, the Buckeye Pipeline site south of SR 32 in the event the gas main will need to be relocated. A recommendation of award is being prepared and will be presented to the Council in May.

WPWD and HNTB are working with Buckeye Pipeline to determine the necessary actions that must take place if the gas line is in conflict with the sewer. Buckeye is unable to provide the depth of their line and efforts to uncover it have been unsuccessful. At the start of the project, the contractor will locate the line to determine if modifications will need to be made to the gas line or the interceptor.

Through recent discussions with IDEM it has been determined that the Town will be able to complete wetland mitigation efforts on-site and will not need to provide off-site mitigation. HNTB is working with IDEM to obtain the necessary permits to begin construction within the wetlands.

5. 2007 Resurfacing Program

HNTB is currently working on the INDOT permitting for the SR 32 Passing Blister. Based on the e-mail from Dwane Myers April 27, 2007, the INDOT Greenfield District is reviewing the existing right of way and will respond to the town's letter requesting State funds. The Town is responsible for acquiring R/W. There is a possibility of donation from Wilfong.

HNTB has started design of the 161st Street & Springmill Intersection improvement grading plan. Both the passing blister and the 161st Street & Springmill Intersections are anticipated to be included in the 2007 resurfacing program. The project cost estimates and bid documents will be completed by mid-May. Ted



Behrens is continuing to work with Rob Kmetz (Town of Westfield, Engineering Tech) as a mentor. He is developing the current year's resurfacing program and will help Rob manage the construction of the program for 2007.

6. Public Works Department Facilities Expansion

WPWD is continuing the process of selecting a design-build company to expand the office, vehicle storage and salt storage facilities. The Town has already short listed three qualified Architect/Contractor teams, and sent them a request for proposal in April. HNTB assisted the WPWD in assembling this proposal. As part of the next few steps, the Architect/Contractor teams will provide preliminary design and other pertinent information that will be judged on the criteria of quality, design features, O&M costs, and construction. This proposal is due May 9, 2007. The Technical Review committee will make their final recommendations to the Town Council in June to award the design-build contract. The project is currently scheduled to be completed by the end of the year.

7. Washington Woods Lift Station, Force Main and Gravity Sewer

The start up of the lift station was successfully completed during the first week of April. The WPWD staff has requested that modifications be made to raise the elevation of the electrical gear. HNTB is preparing a scope for the contractor to follow to raise the gear. Once the modifications are made the contractor will make the remaining sewer tie-ins and begin final grading and clean-up.

8. Wastewater Treatment Facility (WWTF) - Added Office / Lab Area

HNTB will be assisting the WPWD with bidding the added office/laboratory area at the WWTF in May/June 2007.

9. Cherry Tree Raw Water Main

The Cherry Tree Road Raw Water Line is installed. Flushing, disinfection, and testing are continued in April. Weather-dependent work such as road crossing surface repair, grading and seeding, is anticipated to take place in May. Adjustment of well pump heads to match new, lower-head, system curve, is being coordinated with Bastin-Logan Water Services, Inc. Efforts to finalize the permanent easement agreements along the water line route continued in April.

10. MPO Planning Projects – The Thoroughfare Plan and the Oak Ridge Road and Carey Road Corridor Studies

Both MPO projects were substantially complete in December. The corridor studies work was completed in February. The thoroughfare plan along with a revised bicycle and pedestrian plan was presented to the Advisory Plan Committee in March with final approval at the April (correction) Town Council meeting. All activities related to the MPO projects are now complete.

11. Sycamore/Birch Storm Sewers

HNTB is in the process of designing a stormwater system to improve drainage along Sycamore and Birch Streets. The stormwater system is to be comprised of sub-surface drains / ditch improvements that will convey the surface water into a storm pipe. The storm pipe will then convey the water to the Westfield Washington Schools Athletic Complex. We are looking at the



need for a dry detention basin prior to the water being conveyed into the Athletic Complex system.

As an alternative, HNTB is looking at a more conventional storm sewer system with grass swales at the inlets along Sycamore and Birch Streets. Such a system would provide improved water quality and reduce the dependence on the drainage ditches for stormwater runoff.

Tasks completed to date are the project kick off meeting, review of Drainage Study Report for Westfield Washington Schools Athletic Complex, site visit, survey of the proposed route, topographical survey review and preliminary analysis, preliminary analysis of alternatives. Final design is anticipated by mid June with advertisement by June 29, 2007.

12. Signal Pre-emption

As requested by the Town, HNTB is developing the design scope and fee estimate for signal pre-emption at ten State-owned intersection locations. In order to finalize the scope by early May, we are coordinating with INDOT Greenfield district office to obtain the existing signal plans.

13. Miscellaneous Assistance

- a. HNTB is assisting the WPWD with developer permitting for water and sewer. The following developments were reviewed: Crossroads Church, Cool Creek, Walnut Ridge.
- b. HNTB reviewed the Lantern Commons development concept site plan and traffic study.
- c. HNTB is assisting WPWD in evaluating the connection of Westfield Steel (permanent) and Fabcon (temporarily) to the J. Edwards Drain interceptor. Fabcon's septic system is failing. Ultimately, Fabcon will discharge to the Westside interceptor.

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This portion of the Progress report covers Bowen Engineering (BEC) / HNTB activities within the Performance Contracting (or Utility Energy Efficiency) Project. The only active project is the Greyhound Pass WTP. Plant start-up began in March with Bastin-Logan assistance and was completed in April with well test pumping, filter back-flushing, and equipment disinfection. Installation of the security equipment is being done by the Town. This new structure includes restroom facilities that will be available to visitors on the Monon Trail. Bowen and HNTB are moving forward to design and construct 300,000 gallons of additional storage at the site. Design of the tank is at 30% complete.



# **"EXHIBIT A"**

## **TABULATION OF BIDS**

**TOWN OF WESTFIELD, INDIANA  
WESTSIDE INTERCEPTOR SEWER**

**BIDS RECEIVED: April 24, 2007 at 11:30 A.M. (Local Time)**

NAME OF CONTRACTOR	BOWEN	KOKOSING	GRADEX	DUNIGAN BROS	ATLAS EXC
ITEM					
Base Bid	\$ 18,344,956.00	\$ 20,023,772.20	\$ 19,822,615.00	\$ 19,925,531.25	\$ 15,181,812.00
Alternate 1	\$ 12,129,021.00	\$ 14,540,452.00	\$ 14,707,650.00	\$ 14,350,613.75	\$ 9,529,968.00
Alternate 2	\$ 464,900.00	\$ 457,600.00	\$ 450,025.00	\$ 526,859.00	\$ 459,400.00
Alternate 3	\$ 587,555.00	\$ 573,460.00	\$ 883,700.00	\$ 370,073.00	\$ 408,800.00
Alternate 4	\$ 20,000.00	\$ 160,000.00	\$ 100,000.00	\$ 190,000.00	\$ 46,000.00

NAME OF CONTRACTOR	EAGLE VALLEY	REYNOLDS	S.J. LOUIS
ITEM			
Base Bid	\$ 19,181,556.00	\$ 21,753,524.05	\$ 19,852,500.00
Alternate 1	\$ 14,487,196.00	\$ 16,979,125.00	\$ 13,557,605.00
Alternate 2	\$ 408,579.00	\$ 436,677.00	\$ 450,900.00
Alternate 3	\$ 397,258.00	\$ 496,428.00	\$ 531,500.00
Alternate 4	\$ 40,000.00	\$ 200,000.00	\$ 40,000.00



May 3, 2007

**HNTB**

Mr. Bruce Hauk  
Town of Westfield  
2706 East 171st Street  
Westfield, Indiana 46074

Re: Evaluation of Bids  
West Side Interceptor Sewer  
HNTB Job No. 36753-DS-002, File 1A

Dear Bruce:

Bids were received at 11:30 a.m. on April 24, 2007, for construction of the West Side Interceptor Sewer project. Each sealed bid was opened and read aloud at the meeting.

There were eight (8) contractors that submitted a bid for the project. Enclosed for your information and review is a copy of the certified Bid Tabulation.

The bids for the project were as follows.

		Mandatory Alternate No. 1	Mandatory Alternate No. 2	Mandatory Alternate No. 3	Mandatory Alternate No. 4
	Base Bid				
Atlas Excavating, Inc.	\$15,181,812.00	\$ 9,529,968.00	\$459,400.00	\$408,800.00	\$ 46,000.00
Bowen Engineering	\$18,344,956.00	\$ 12,129,021.00	\$464,900.00	\$587,555.00	\$ 20,000.00
Eagle Valley, Inc.	\$19,181,556.00	\$ 14,487,196.00	\$408,579.00	\$397,258.00	\$ 40,000.00
Gradex, Inc.	\$19,822,615.00	\$ 14,707,650.00	\$450,025.00	\$883,700.00	\$ 100,000.00
S.J. Louis Construction	\$19,852,500.00	\$ 13,557,605.00	\$450,900.00	\$531,500.00	\$ 40,000.00
Dunigan Bros., Inc.	\$19,925,608.81	\$ 14,350,691.31	\$526,859.00	\$370,073.00	\$ 190,000.00
Kokosing Construction	\$20,023,772.20	\$ 14,540,452.00	\$457,600.00	\$573,460.00	\$ 160,000.00
Reynolds, Inc.	\$21,753,524.05	\$ 16,979,125.00	\$436,677.00	\$496,428.00	\$ 200,000.00

A review of the bids indicates that each bidder provided the required supporting documents as outlined in the requirements of the specifications. There were multiplication errors in the Dunigan Bros., Inc., bid which have been modified and shown correctly in the above breakdown.

Based upon review of the bid documents and our subsequent analysis, it is our recommendation that tentative Award of Contract should be made to Atlas Excavating, Inc. at a total contract price of \$13,497,268.00 (Base Bid price with Mandatory Alternate No. 1 (Hobas Pipe), Mandatory Alternate No. 2 (Manhole Lining), and Mandatory Alternate No. 4 (Sewer Installation)).



Mr. Bruce Hauk  
Town of Westfield  
May 3, 2007  
Page 2

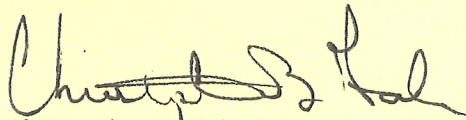
Enclosed is a disk containing the attached draft letter for your use to transmit the Tentative Award of Contract to the low responsive bidder. Please print three (3) copies of this letter on the appropriate letterhead. Please note the Tentative Award of Contract has been made contingent upon finalization of financing and receiving an Indiana Department of Environmental Management construction permit.

If the Town of Westfield agrees to make tentative award to Atlas Excavating, Inc., at your May 14, 2007 meeting, please have all three copies of the tentative award letter signed, send one to the contractor, one to our office and keep the remaining copy for your file. After we receive our copy, we will forward a copy of it to the remaining bidders to inform them of your decision to tentatively award the contract to Atlas Excavating, Inc..

Please contact me if any questions arise regarding the bids or bid evaluation.

Very truly yours,

HNTB CORPORATION

A handwritten signature in dark ink, appearing to read "Christopher B. Gale", is written over the printed name.

Christopher B. Gale, P.E.  
Project Manager

CBG/dmk  
Enclosure

cc: Mr. Kurt Wanninger - w/ enclosure  
Mr. Andy Kern - w/ enclosure

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# TABULATION OF BIDS

## TOWN OF WESTFIELD, INDIANA WESTSIDE INTERCEPT SEWER

HNTB Job No. 36753-DS-003-001  
Engineer's Estimate: \$21,000,000.00

**BIDS RECEIVED: April 24, 2007 at 11:30 A.M. (Local Time)**

NAME OF CONTRACTOR	Atlas Excavating, Inc. 4740 Swisher Road, Building A West Lafayette, IN 47906	Bowen Engineering Corp. 10315 Allisonville Road Fishers, IN 46038	Eagle Valley, Inc. 3401 N. Raceway Road Indianapolis, IN 46234	Gradex, Inc. 3685 Priority Way S. Dr., Suite 140 Indianapolis, IN 46240
ITEM				
Proposal Form	X	X	X	X
Bid Security	X	X	X	X
Form 96	X	X	X	X
Non-Collusion Affidavit	X	X	X	X
Addendum Nos. 1, 2 & 3 Received	X	X	X	X
<b>LUMP SUM BASE BID</b>	<b>\$15,181,812.00</b>	<b>\$18,344,956.00</b>	<b>\$19,181,556.00</b>	<b>\$19,822,615.00</b>
Mandatory Alternate No. 1	\$9,529,968.00	\$12,129,021.00	\$14,487,196.00	\$14,707,650.00
Mandatory Alternate No. 2	\$459,400.00	\$464,900.00	\$408,579.00	\$450,025.00
Mandatory Alternate No. 3	\$408,800.00	\$587,555.00	\$397,258.00	\$883,700.00
Mandatory Alternate No. 4	\$46,000.00	\$20,000.00	\$40,000.00	\$100,000.00



# TOWN OF WESTFIELD, INDIANA WESTSIDE INTERCEPTOR SEWER

NAME OF CONTRACTOR	S.J. Louis Construction, Inc. P.O. Box 399 3032 CR 138 Waite Park, MN 56387-0399	Dunigan Bros., Inc. 911 East South Street Jackson, MI 49203	Kokosing Construction Co. P.O. Box 226, Waterford Rd Fredericktown, OH 43019	Reynolds, Inc. 4520 N State Road 37 Orleans, IN 47452
ITEM				
Proposal Form	X	X	X	X
Bid Security	X	X	X	X
Form 96	X	X	X	X
Non-Collusion Affidavit	X	X	X	X
Addendum Nos. 1, 2 & 3 Received	X	X	X	X
LUMP SUM BASE BID	\$19,852,500.00	\$19,925,608.81 *	\$20,023,772.20	\$21,753,524.05
Mandatory Alternate No. 1	\$13,557,605.00	\$14,350,691.31 *	\$14,540,452.00	\$16,979,125.00
Mandatory Alternate No. 2	\$450,900.00	\$526,859.00	\$457,600.00	\$436,677.00
Mandatory Alternate No. 3	\$531,500.00	\$370,073.00	\$573,460.00	\$496,428.00
Mandatory Alternate No. 4	\$40,000.00	\$190,000.00	\$160,000.00	\$200,000.00

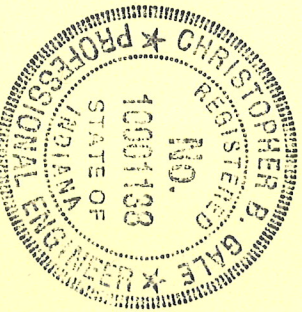
\* Dunigan Bros., Base Bid and Mandatory Alternate No. 1 both contained math errors. Corrected amounts are shown.

Except for any noted errors, I certify that the prices tabulated above are the same as set forth in the Bidder's proposal.

Certified by:



Christopher B. Gale, P.E., Project Manager  
Registered Engineer No. 10001138  
State of Indiana



Prepared by  
HNTB Corporation  
April 30, 2007



# "EXHIBIT C"

## TABULATION OF BIDS

HNTB Job No. 43085-DS-001-001  
Engineer's Estimate: \$4,000,000.00

### TOWN OF WESTFIELD, INDIANA RIVER ROAD WATER TREATMENT PLANT EXPANSION

BIDS RECEIVED: April 18, 2007 at 11:30 A.M. (Local Time)

NAME OF CONTRACTOR	M.K. Betts	PAE Associates	Bowen Engineering	Shook
ITEM				
Proposal Form	x	x	x	x
Bid Security	x	x	x	x
Form 96	x	x	x	x
Non-Collusion Affidavit	x	x	x	x
Addendum No. 1 Received	x	x	x	x
LUMP SUM BASE BID	\$2,875,000	\$2,925,000	2,789,000	\$2,719,000



May 3, 2007

**HNTB**

Mr. Bruce Hauk  
Town of Westfield  
2706 East 171st Street  
Westfield, Indiana 46074

Re: Evaluation of Bids  
River Road Water Treatment Plant Expansion  
HNTB Job No. 43085-DS-002, File 1A

Dear Bruce:

Bids were received at 11:30 a.m. on April 18, 2007, for construction of the River Road Water Treatment Plant Expansion project. Each sealed bid was opened and read aloud at the meeting.

There were four (4) contractors that submitted a bid for the project. Enclosed for your information and review is a copy of the certified Bid Tabulation.

The bids for the project were as follows.

Shook Construction	\$ 2,719,000.00
Bowen Engineering Corporation	\$ 2,789,000.00
M.K. Betts Engineering & Contracting, Inc.	\$ 2,875,000.00
PAE & Associates, Inc.	\$ 2,925,000.00

A review of the bids indicates that each bidder provided the required supporting documents as outlined in the requirements of the specifications. The low bidder, Shook Construction, has just recently gotten involved in the local municipal market. The company has been serving municipalities in other areas for some time. We contacted their references and received positive feedback on their prior performance.

Based upon review of the bid documents and our subsequent analysis, it is our recommendation that tentative Award of Contract should be made to Shook Construction at a contract price of \$2,719,000.

Enclosed is a disk containing the attached draft letter for your use to transmit the Tentative Award of Contract to the low responsive bidder. Please print three (3) copies of this letter on the appropriate letterhead. Please note the Tentative Award of Contract has been made contingent upon finalization of financing.

If the Town of Westfield agrees to make tentative award to Shook Construction at your May 14, 2007 meeting, please have all three copies of the tentative award letter signed, send one to the contractor, one to our office and keep the remaining copy for your file. After we receive our copy, we will forward a copy



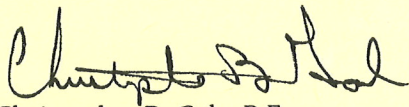
Mr. Bruce Hauk  
Town of Westfield  
May 3, 2007  
Page 2

of it to the remaining bidders to inform them of your decision to tentatively award the contract to Shook Construction.

Please contact me if any questions arise regarding the bids or bid evaluation.

Very truly yours,

HNTB CORPORATION

A handwritten signature in black ink, appearing to read "Christopher B. Gale". The signature is fluid and cursive, with the first name "Christopher" being more prominent than the last name "Gale".

Christopher B. Gale, P.E.  
Project Manager

CBG/dmk  
Enclosure

cc: Mr. Kurt Wanninger - w/ enclosure  
Mr. Andy Kern - w/ enclosure

I:\43085 Westfield River Rd\Bidding\B Hauk - River Rd Bid Recomend 050307.doc



# TABULATION OF BIDS

HNTB Job No. 43085-DS-001-001  
Engineer's Estimate: \$4,000,000.00


## TOWN OF WESTFIELD, INDIANA RIVER ROAD WATER TREATMENT PLANT EXPANSION

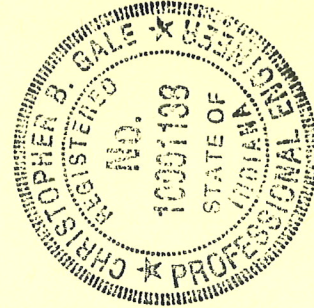
BIDS RECEIVED: April 18, 2007 at 11:30 A.M. (Local Time)

NAME OF CONTRACTOR	Shook Construction 7330 East 90 <sup>th</sup> St., Ste. 2 Indianapolis, Indiana 46256	Bowen Engineering Corporation 10315 Allisonville Road Fishers, Indiana 46038	M.K. Betts Engineering & Contracting Inc. 333 Sycamore Street Anderson, Indiana 46016	PAE & Associates, Inc. 6933 Brookville-Salem Pk. P.O. Box 429 Brookville, Indiana 45309
ITEM				
Proposal Form	X	X	X	X
Bid Security Form 96	X	X	X	X
Non-Collusion Affidavit	X	X	X	X
Addendum No. 1 Received	X	X	X	X
LUMP SUM BASE BID	\$2,719,000.00	\$2,789,000.00	\$2,875,000.00	\$2,925,000.00

Except for any noted errors, I certify that the prices tabulated above are the same as set forth in the Bidder's proposal.

Certified by:

  
Christopher B. Gale, P.E., Project Manager  
Registered Engineer No. 10001138  
State of Indiana





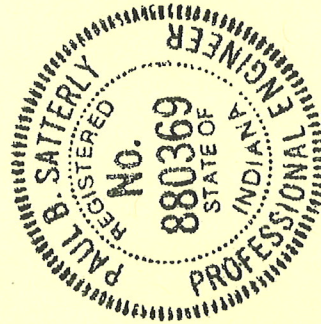
# EXHIBIT B

TABULATION OF BIDS  
 Town of Westfield, Indiana  
 147th Street/Greyhound Pass Traffic Signal  
 Engineer's Estimate \$149,837.75  
 HNTB Job No. 42619-DS-001-001  
 BIDS RECEIVED: April 4, 2007 at 1:00 p.m. (Local Time)

NAME AND ADDRESS OF CONTRACTOR	Midwestern Electric, Inc. 3385 N. Arlington Avenue Indianapolis, IN 46218	Calumet Asphalt Paving Co., Inc. 5265 East 96th Street Indianapolis, IN 46240
ITEM		
Proposal Form	X	X
Affidavit of Non-Collusion (Form 96)	X	X
Form 96, with Section III	X	X
Bid Bond/Security	X	X
<b>BASE BID PRICE</b>	<b>* \$193,413.35</b>	<b>** \$198,165.88</b>

Except for any noted errors, I certify that the prices as tabulated above are the same as set forth in the bidder's proposal.  
 Certified by:

*Paul B. Satterly*  
 Paul B. Satterly, P.E.  
 Registered Engineer No. 880369  
 State of Indiana



Prepared by:  
 HNTB CORPORATION  
 Indianapolis, Indiana

April 5, 2007

\* Addition error for Total Base Bid. Total Base Bid shown in the Bid Proposal is \$193,412.85.  
 \*\* Unit Cost shown in the Bid Proposal is \$10.00 for Item Number 14.  
 Total Cost shown by Bid Proposal for Item No. 14 is \$1,140.00. Unit Cost for Item No. 14 should be \$0.50.



## “EXHIBIT D”

### SECTION 02501 - STANDARDS OF ROADWAY GEOMETRIC DESIGN

#### PART 1 - GENERAL

1.1 Secondary Plats shall conform to the following requirements and standards:

A. Minimum Pavement Width

1. Minimum pavement widths, to be installed at the subdivider's expense, shall be as follows:
  - a. Primary Arterials: Four (4) lanes at 12 feet, 16 feet center turn lane, plus two (2) feet curb and gutter.
  - b. Secondary Arterials: Four (4) lanes at 12 feet, or two (2) lanes at 12 feet plus two (2) parking lanes at ten (10) feet, plus two (2) feet curb and gutter.
  - c. Collector Streets: 36 feet back of curb to back of curb (2 feet curb and gutter).
  - d. Local Streets: 31 feet back of curb to back of curb (2 feet curb and gutter).
  - e. Subdivision Streets: Per standard drawings G-1, G-2, G-5 through G-9.
  - f. The pavement of a turning circle at the end of cul-de-sacs shall have a minimum outside diameter of 76 feet for local cul-de-sacs and 100 feet for all others.
  - g. Alleys: Per standard drawing G-10.
  - h. In all commercial areas, the minimum pavement width shall be 36 feet back of curb to back of curb or as approved by variance by the WPWD Engineer.
2. In all industrial areas, the minimum pavement width shall be 24 feet with 8 feet of shoulder on each side of the pavement with "No Parking" on the shoulders.

B. Street Grades, Curves, and Sight Distances

1. The minimum vertical grade for all streets shall be 0.5%.
2. Maximum Vertical Grades
  - a. The maximum vertical grade for Primary Arterials and Secondary Arterials shall be 5.0%.
  - b. The maximum vertical grade for Collectors shall be 8%.



- c. The maximum vertical grade for Local Roads or Streets shall be 8%.
  - d. The first 25 feet of an intersecting roadway, from the outer edge of a through roadway, shall be designed with a two percent (2%) downward grade. With a sag vertical curve situation, the two percent grade shall connect with the remaining street profile grade using a minimum vertical curve length of 50 feet. This sag vertical curve may start at the edge of the through roadway. With a crest vertical curve at the approach to an intersection, the two percent downward grade shall extend 25 feet from the edge of the through roadway and the crest vertical curve can begin at that point. The length of the crest vertical curve shall meet the requirements of the 1990 AASHTO Standards for crest vertical curves.
- 3. Vertical curves shall be designed to meet or exceed 1990 AASHTO Standards for sag and crest vertical curves as shown in Tables III-40 and III-42.
  - a. Local Roads or Streets shall have a design speed of 30 mph.
  - b. Collectors shall have a design speed of 30 mph.
  - c. Primary Arterials and Secondary Arterials shall have a minimum design speed of 40 mph.
- 4. Horizontal centerline curve radius shall meet or exceed 1990 AASHTO Standards and shall correspond to the following design speeds:
  - a. Subdivision Roads shall have a design speed of 30 mph and require a 150 foot minimum centerline radius. Any variances to this standard must be requested in writing and approved by the WPWD Engineer.
  - b. Local Roads or Streets and Collectors shall have a design speed of 30 mph and require a 300 foot minimum centerline radius.
  - c. Primary Arterials and Secondary Arterials shall have a design speed of 40 mph and require a 675 foot minimum centerline radius.
  - d. Tangent distance between reverse curves shall be 100 feet.
- 5. The maximum length cul-de-sac length shall be 600 feet measured along the centerline from the intersection at the origin to the center of circle. Each cul-de-sac shall have a terminus of circular shape with minimum right-of way diameter of 100 feet for residential use and 120 feet for industrial use. Reference Figure P-12.



C. Intersections

1. At street and alley intersections, property line corners shall be rounded by an arc, the minimum radius of which shall be 20 and ten (10) feet respectively. In business districts, a chord may be substituted for such arc.
2. Street curb intersections shall be rounded by radii of at least 25 feet. A radius of 40 feet shall be used at the intersection with a Primary Arterial, Secondary Arterial or Collector street.
3. The above minimum radii shall be increased when the angle of street intersection is less than 90 degrees.
4. Intersections of more than two (2) streets at one point will not be allowed.
5. Street jogs with centerline offsets of less than 125 feet shall not be permitted.
6. All streets shall intersect at 90 degrees whenever possible for a minimum distance of 100 feet; however, in no instance shall they intersect at less than 80 degrees onto Primary Arterials, Secondary Arterials, or Collectors; or at less than 70 degrees onto Local Roads or Streets.
7. The following paragraphs shall be required as provisions of restrictive covenants of all Secondary Plats to which they apply:
  - a. No fence, wall, hedge, tree or shrub planting which obstructs sight lines and elevations between three (3) and nine (9) feet above the street shall be placed or permitted to remain on any corner lot within the triangular area formed by the street right-of-way lines and a line connecting points 40 feet from the intersection of said street lines 40 feet for Collectors and Local Roads and Streets; and 75 feet for Primary Arterials and Secondary Arterials, or in the case of a rounded property corner, from the intersection of the street right-of-way lines extended.
  - b. The same sight line limitations shall apply to any lot within ten (10) feet of the intersection of a street right-of-way line with the edge of the driveway pavement or alley line. No



driveway shall be located within 75 feet of the intersection of two streets.

8. At the intersection of any proposed Subdivision Road or Local Road or Street with a Primary Arterial, Secondary Arterial, or Collector, acceleration and deceleration lanes, passing blisters or left turn lanes shall be provided on the Primary Arterial, Secondary Arterial, or Collector. Reference Figure G-13.

#### D. Easements

1. Where alleys are not provided, easements for utilities shall be provided. Such easements shall have minimum widths of 20 feet, and where located along lot lines, one-half the width shall be taken from each lot.
2. Where a subdivision is traversed by a watercourse, drainage ditch, channel, or stream, adequate areas for storm water or drainage easements shall be allocated for the purpose of widening, deepening, sloping, improving or protecting said watercourses in accordance with the requirements of the Hamilton County Drainage Board and/or the Westfield Utilities Department.
3. The subdivider shall be encouraged to design for the placement of utility lines underground, following the required standards and specifications established by each utility company. The location of each underground utility system shall be shown by appropriate easement lines on the proposed plat.

#### E. Obstruction Free Zones

*The obstruction free zone is defined as the roadside area next to the travelway which should be free from hazards and obstructions. Obstacles within the obstruction free zone limits should be removed, made breakaway, or shielded with guardrail. The obstruction free zone values given below are minimums and should be extended where accident experience indicates a wider zone would further enhance safety.*

*The following obstruction free zones apply to roadway projects:*

1. *Rural and Urban Arterials with Shoulders. Where the design speed is 50 mph or greater and the design ADT is over 1500, the minimum obstruction free zone is 20 ft from the edge of the through traffic lanes or to the right-of-way line, whichever is less. For roadways where the design speed is less than 50 mph, and the design ADT is less than 1500, the minimum obstruction free zone from the edge of through traffic lanes is 10 ft plus the usable shoulder width provided, or to the right-of-way line, whichever is less.*



2. *Rural and Urban Collectors with Shoulders. Where the design speed is 50 mph or greater and the design ADT is over 1500, the minimum obstruction free zone from the edge of the through traffic lanes is 10 ft plus the usable shoulder width provided, or to the right-of-way line, whichever is less. For Roadways where the design speed is less than 50 mph and design ADT is less than 1500, the minimum obstruction free zone from the edge of through traffic lanes is 6.5 ft, plus the usable shoulder width provided, or to the right-of-way line, whichever is less.*
3. *Rural and Urban Local Roads and Streets with Shoulders. The minimum obstruction free zone from the edge of the through traffic lane is 6.5 ft plus the usable shoulder width provided, or to the right-of-way line, whichever is less.*
4. *Curbed Roadways. Where curbs are 6 in. or higher and the posted speed limit is less than 50 mph, the minimum obstruction free zone from the face of the curb should be 1.6 ft. However, for traffic signal supports the minimum obstruction free zone should be 2.6 ft. Where the curbs are less than 6 in. in height or the posted speed limit is 50 mph or greater regardless of curb height, the minimum obstruction free zone will be the same as defined in Items A, B, or C above.*
5. *Appurtenance-Free Area. Roadways for all functional classifications should have a 1.6 ft appurtenance-free area from the face of curb or from the edge of the travel lane if there is no curb. For traffic signal supports, a 2.6 ft clearance should be provided. The appurtenance free area is defined as a space in which nothing, including breakaway safety appurtenances, should protrude above the paved or earth surface. The objective is to provide a clear area adjacent to the roadway in which nothing will interfere with extended side-mirrors on trucks, with the opening of vehicular doors, etc.*
6. *On-Street Parking. The following obstruction-free zone requirements will apply to facilities with on-street parking.*
  - a. *Continuous 24-Hour Parking. No obstruction-free zone is required on facilities where there is continuous 24-hour parking, except that the appurtenance-free area as shown in Figure 55-5A should be provided from the face of the curb or edge of the parking lane if there is no curb.*
  - b. *Parking Lane Used as a Travel Lane. The obstruction-free zone should be determined assuming the edge of the parking lane as the right edge of the farthest right travel lane.*



## 7. Application

- a. *The designer should eliminate or modify the following hazards, according to the above treatments, if they are within the obstruction free zone:*
- b. *Tree Removal. Trees that will mature to a diameter of 4 in. or more should be removed from the obstruction free zone, unless shielded by a protective device required for other purposes. Trees on back slopes may generally remain if they are unlikely to be impacted by errant vehicles.*
- c. *Obstructions. Obstructions within the obstruction free zone, such as rough rock cuts, boulders, headwalls, foundations, etc., with projections that extend more than 4 in. above the ground line should be removed, relocated, made breakaway or shielded with guardrail as appropriate. A rough rock cut is one that presents a potential vehicular snagging problem.*
- d. *Sign and Light Supports. Sign posts and light poles to remain within the obstruction free zone will be made breakaway. In urban areas where pedestrian traffic is prevalent, breakaway light supports should not be used. However, these supports should, as a minimum, be offset beyond the obstruction free zone value as presented in Section 02501 – 1.1 – E or desirably behind the sidewalk. In other areas where pedestrian traffic is prevalent, the use of breakaway supports will be considered on a case-by-case basis by the field review team.*
- e. *Traffic Signals. Traffic signal supports should be placed to provide the obstruction-free zone through the area where the traffic signal supports are located. However, the following exceptions will apply:*
- f. *Channelized Islands. Installation of signal supports in channelizing islands should be avoided, if practical, however, if a signal support must be located in a channelizing island, a minimum clearance of 30 ft should be provided from all travel lanes (including turn lanes) in rural areas and in urban areas where the posted speed is greater than 45 mph. In urban areas where the island is bordered by a barrier curb and the posted speed is 45 mph or less, a minimum clearance of 10 ft should be provided from all travel lanes (including turn lanes).*
- g. *Non-Curbed Facilities (Posted Speeds  $\geq 50$  mph and ADT  $> 1500$ ). Where conflicts exist such that the placement of the signal supports outside of the obstruction-free zone is impractical (e.g., conflicts with buried or utility cables), the signal supports should be located at least 10 ft beyond the outside edge of the shoulder.*



- h. *Non-Curbed Facilities (Posted Speeds < 50 mph or ADT ≤ 1500). Where conflicts exist such that the placement of the signal supports outside of the obstruction-free zone is impractical (e.g., conflicts with buried or utility cables), the signal supports should be located at least 6.5 ft beyond the outside edge of the shoulder.*
- i. *Culverts. Culvert ends are considered to be within the obstruction free zone if the point at which the top of the culvert protrudes from the slope is within the obstruction free zone. Transverse Slopes on Side Roads and Private Drives. Steep transverse slopes on side roads and private entrances should be considered for flattening, if practical. Desirably these slopes should be 6:1 or flatter, but in no case should they be steeper than 4:1. Transverse slopes on median crossovers will be 10:1 or flatter.*
- j. *Curbs. Curbs should generally be removed on rural highways where posted speeds are greater than 45 mph. The proper placement of traffic control devices must be considered in reviewing the removal of corner island curbs where such devices are located. This item is not intended to cover divisional (channelizing) islands separating two-way traffic or curbs at the edge of shoulder for drainage. In the latter two cases, sloping curbs should be used on highways with posted speeds greater than 45 mph. Curbs higher than 4 in. should not be used in conjunction with guardrail. The face of curbs, used in conjunction with guardrail, should desirably be behind the face of the rail. If this cannot be achieved, the face of the curb may be located flush with the face of the rail.*
- k. *Utility Poles. Utility poles within the obstruction free zone which are not owned by the Town of Westfield or INDOT often constitute a significant hazard and should be removed or relocated. Utility companies should be requested to relocate utility poles that are located in high vulnerability areas such as channelizing islands, or where the accident history indicates there has been a utility pole accident problem. The Development Construction Division, based on their judgment, will determine where such work is warranted.*
- l. *Non-Traversable Hazards. Fill slopes steeper than 1:1 with a height greater than 2 ft within the obstruction-free zone should be flattened to the extent practical. If any part of a drainage ditch appears within the obstruction-free zone, it should be relocated.*



Not Applicable

### PART 3 - EXECUTION

Not Applicable

### PART 4 – FIGURES

#### 4.1 STANDARD GENERAL DETAILS

<u>FIGURE</u>	<u>DESCRIPTION</u>
G-1	Typical Cross Section – Collector and Local Streets
G-2	Typical Cross Section – Local Street With Type A Trees
G-3	Typical Cross Section – Secondary Arterial
G-4	Typical Cross Section – Local Street With Type B Trees
G-5	Typical Cross Section – Boulevard Entrance With Type A Trees and Parking
G-6	Typical Cross Section – Boulevard Entrance With Type A Trees
G-7	Typical Cross Section – Local Street With Type A Trees and Parking on Both Sides
G-8	Typical Cross Section – Local Street With Type A Trees and Parking on One Side
G-9	Typical Cross Section – Local Street With Type A Trees and No Parking
G-10	Typical Cross Section – Alley
G-11	List of Acceptable Trees – Type A
G-12	List of Acceptable Trees – Type B
G-13	Minimum Subdivision Entrance
G-14	Adopted Thoroughfare Plan
G-14.1	Adopted Thoroughfare Plan
G-15	Residential Driveway Standard

END OF SECTION 02501